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THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of  
Thomas A. Herold *et al.*

Serial No. 09/780,303

Examiner: P.J. Lish

Filed: February 9, 2001

Group Art Unit: 1754

For: **APPARATUS AND METHOD FOR MAKING CARBON FIBERS**

**CERTIFICATE OF EXPRESS MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service Express Mail No. EV 709301523 US in an envelope addressed to: Commissioner for Patents, Mail Stop Appeal Brief-Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 20, 2006.

  
Suzanne J. Wills

**REPLY BRIEF**

Commissioner for Patents  
Mail Stop Appeal Brief-Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**ATTENTION: Board of Appeals and Interferences**

Sir:

**9. Regarding ARGUMENT (ISSUE 2):**

The Examiner claims that the Applicant's reliance on *In Re Oetiker* is improper because the application of the rule in question is limited to the facts of that case, i.e., to an obviousness determination where an examiner combines references from different arts. However, if the Court of Appeals for the Federal Circuit had intended the rule to apply only where combined references are from different arts, you would expect that other Federal Circuit cases applying the rule would include the same fact situation, i.e., references from different fields of endeavor. They do not. According to that Court, evidence of motivation to combine may come in the form of an express teaching or suggestion in the prior art or in knowledge generally available to one of ordinary skill in the art. *See, e.g., In re Oetiker*, 24 USPQ2d 1443, 1446-1447 (Fed. Cir. 1992). Evidence of motivation may also be found in "the nature of the problem to be solved, leading inventors to look to references relating

to possible solutions to that problem.” *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.* 37 USPQ2d 1626, 1630 (Fed. Cir. 1996)(references from same field of endeavor); *See also, e.g., In re Rinehart*, 189 USPQ 143, 149 (CCPA 1976) (references from same field of endeavor); *In re Rouffet* at 1458; *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.* 37 USPQ2d 1237, 1240 (Fed. Cir. 1995)(references from same field of endeavor); *In re Oetiker* at 1446-1447. In other words, if an examiner is unable to find evidence of motivation in an express teaching or suggestion in the prior art or knowledge generally available to one of ordinary skill in the art, the examiner can still show an implicit motivation to combine with evidence that one skilled in the art, confronted with the same problem as the inventor, would know to use a prior art teaching to solve that problem, i.e., the problem that the applicant sought to solve through the invention in question. *Id*<sup>1</sup>. For this to be the case, the problem that the invention solves must be the same as or at least similar to the problem that the prior art teaching solves. *In re Rinehart* at 149; *Para-Ordinance* at 1240; *Motorola, Inc. v. Interdigital Technology Corp.*, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997)(“the record evidence supports the jury’s implicit finding of a suggestion to combine the various references . . .[which] were related and involved similar problems and issues.”); *In re Zurko*, 59 USPQ2d 1693 (Fed. Cir. 2001)(“to say that the missing step comes from the nature of the problem to be solved begs the question because the Board has failed to show that this problem had been previously identified anywhere in the prior art.”). This test may be especially useful in establishing the analogous nature of art from different fields of endeavor as in *In re Oetiker*, but is in no way limited to this application. *Id*.

Regardless of whether the combined references are from the same field of endeavor, as evidence of motivation, it’s not enough to simply identify an advantage that

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<sup>1</sup> The Examiner relies on *Ex Parte Levingood* for the proposition that motivation for combining prior art references need not be explicitly found in references themselves, and that the Examiner may provide explanations based on logic and sound scientific reasoning that will support a holding of obviousness. While this may be true, it doesn’t negate the fact that the Court has held that the Examiner, if unable to find an express teaching in the references or in knowledge generally available to one of ordinary skill in the art, must at least show an implicit motivation to combine.

the suggested combination would share with the claimed invention. If the combination reaches the invention, then it will *always* and *necessarily* provide the same advantages as the invention. To conclude that an invention is obvious because a combination of prior art references that produces the same invention would provide the same advantages, is no different from defining an obvious invention as being one that provides the same advantages as itself. Since this is true of all inventions, the existence of such an advantage is obviously incapable of distinguishing between obvious and non-obvious inventions. Accordingly, it appears that examiners will sometimes rely on the existence of such an advantage to support an obviousness determination when they have a subjective feeling or sense that an invention is obvious, yet lack any objective evidence of a teaching or suggestion in the prior art or general knowledge.

To distinguish between obvious and non-obvious combinations one must instead produce evidence of a teaching or suggestion that would have motivated one skilled in the art to combine those particular references in such a way as to *realize* the advantage. To say that the advantage of the combination can, itself, serve as the motivation to combine, short-circuits the analysis and renders all inventions obvious.

Here, the Examiner claims that the combination of references supported by “an implicit motivating force” that the Examiner identifies as being “simple economic optimization.” The applicant maintains that this is exactly the type of generality that the federal circuit intended to preclude by requiring examiners to provide evidence of motivation from one of the categories described above. See *In Re Lee*, 61 USPQ 2<sup>nd</sup>, 1430, 1434 (Fed. Circ. 2000)(Vacating decision of the Board for, *inter alia*, relying on advantages to support a combination of references and rejecting the need for “any specific hint or suggestion in a particular reference”, and holding that that this constitutes the omission of a relevant factor required by precedent and is both legal error and arbitrary agency action). In *In re Rouffet*, the Board relied upon none of the permissible sources of motivation described above.

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Rather, the Board was reversed for relying on “high level of skill in the art” as evidence of motivation. Similarly, rather than drawing on any of the permissible sources of motivation, the present office action relies instead on the recitation of an *advantage* that the combination would realize, i.e., the ability to save or make more money (economic optimization). However, while the level of skill in the art is at least part of the judicially defined inquiry for a suggestion to combine, the ability to identify or think up a common advantage is not. This is because, as stated above, a combination that reaches the invention will *always* provide the same advantages as the invention. This is not an acceptable test for motivation since, by its use, all inventions would be obvious. If we are to allow such a general and universally applicable advantage as “economic optimization” to suffice, why not also accept “optimization” or “the desire to improve operation” as the requisite motivation or as a common “problem to be solved”? This could not have been the Federal Circuit’s intent when it established this test since it would, as explained above, prevent all inventions from being patented (since virtually all inventions comprise pre-existing technology combined in a novel way to provide economic benefit to the inventor or the inventor’s assignee). As properly applied, the test is satisfied only when an examiner finds identity (or at least similarity) between the *specific* problem solved by the inventor and a problem solved by a prior art reference. Only then can an examiner fairly conclude that the invention is obvious, or, in other words, that the pertinent motivation is a motivation to make obvious the *technologic advance* - not the omnipresent motivation to achieve a competitive or economic benefit or advantage.

For the above reasons, the applicant maintains that the Examiner has not properly supported his obviousness determination and has not presented a *prima facie* case for obviousness. For reasons presented in the applicant’s Appeal Brief<sup>2</sup>, the applicant maintains that claims 9-17 and 20-27 are patentable over Pepper *et al.* taken with Uchida *et al.*

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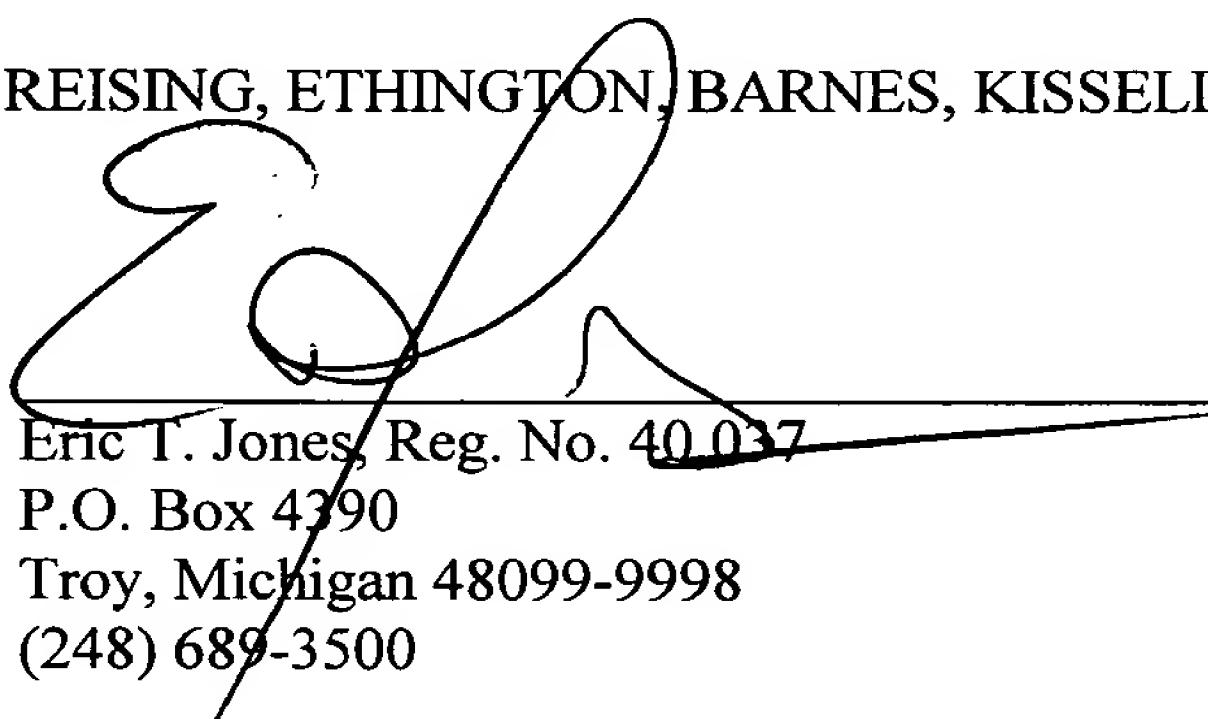
<sup>2</sup> There is no implicit motivation to combine Pepper *et al.* and Uchida *et al.* because Uchida *et al.*’s incorporation of carbonization in an oxidizing process did not solve the same or similar problem to that faced by the inventor, i.e., the problem of how to provide a continuous precursor fiber carbonization process.

In conclusion, these claims are allowable over the teachings of the references, and the Applicant respectfully requests that the Board of Appeals reverse their rejection.

The Commissioner is authorized to charge any fee or credit any overpayment in connection with this communication to our Deposit Account No. 50-0852. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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